GROUP 21A

CLUTCH

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GENERAL INFORMATION

M1211000100331

Due to the addition of vehicles with M/T, the following service procedures for the clutch have been established.

SERVICE SPECIFICATIONS

M1211000300465

Item	Standard value
Clutch pedal lateral play mm	1.5 or less
Clutch pedal height mm	147.8 ± 2
Distance between the clutch pedal and the toeboard when the clutch is disengaged mm	77 or more

LUBRICANTS

M1211000400280

Item	Specified lubricant	Quantity
Clutch fluid	Brake fluid DOT4 +	As required
Release cylinder push rod	Castrol Olista Longtime 3 EP	

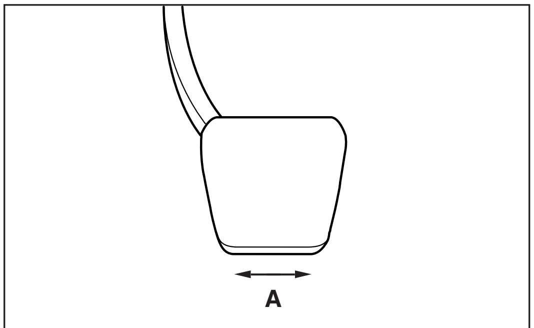
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ON-VEHICLE SERVICE

CLUTCH PEDAL CHECK AND ADJUSTMENT

M1211000900508

NOTE: This clutch pedal assembly is unadjustable because of its structure.



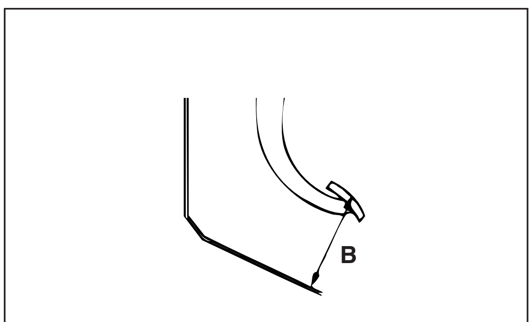
AC601326AB

1. Measure the clutch pedal looseness (A).

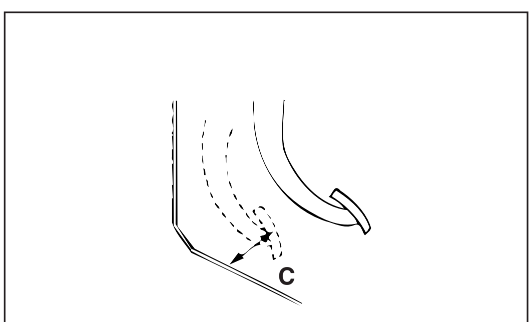
   Standard value (A): 1.5 mm or less

2. When the clutch pedal looseness is not within the standard value, the clutch pedal assembly or the clutch master cylinder may be faulty. In this case, check the clutch pedal assembly or the clutch master cylinder, and replace it if necessary.

3. Turn up the floor carpet under the clutch pedal.



AC311474 AC



AC311475AC

4. Check that the clutch pedal height (B) and the clearance (C) between the clutch pedal and the toe board when the clutch is disengaged are within the standard value.

   Standard value (B): 147.8 ± 2 mm
   Standard value (C): 77 mm or more

5. When the clutch pedal height and the clearance between the clutch pedal and toe board when the clutch is disengaged are not within the standard value, the air may be intruded into the hydraulic system, or either the clutch master cylinder or the clutch release cylinder may be faulty. In this case, perform air bleeding, or check the clutch master cylinder or the clutch release cylinder, and replace it if necessary.

CLUTCH BLEEDING

M1211001400379

⚠ CAUTION

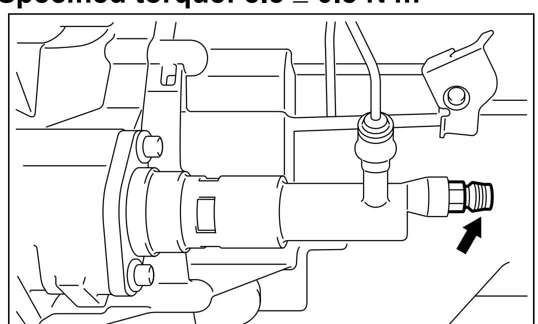
Use the clutch fluid with the specified brand name. Do not mix the fluid with others.

Specified fluid: Brake fluid DOT 4 +

⚠ CAUTION

When the air breather is tightened by the excessive torque, the clutch release cylinder may be damaged. Always tighten the air breather within the standard torque.

Specified torque: 5.5 ± 0.5 N·m



AC311339AC

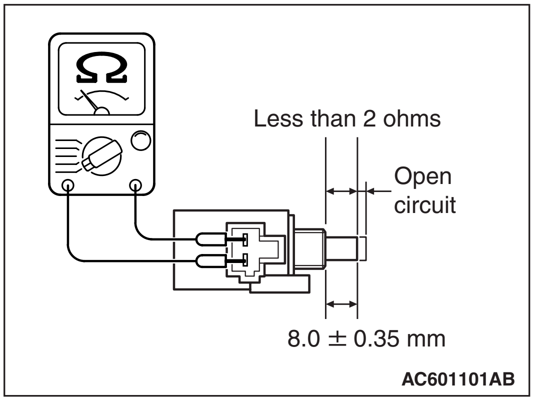
Perform air bleeding of the clutch line from the air breather section shown in the figure.

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CLUTCH PEDAL SWITCH CHECK AND ADJUSTMENT

M1211001100259

1. Remove the clutch pedal switch.



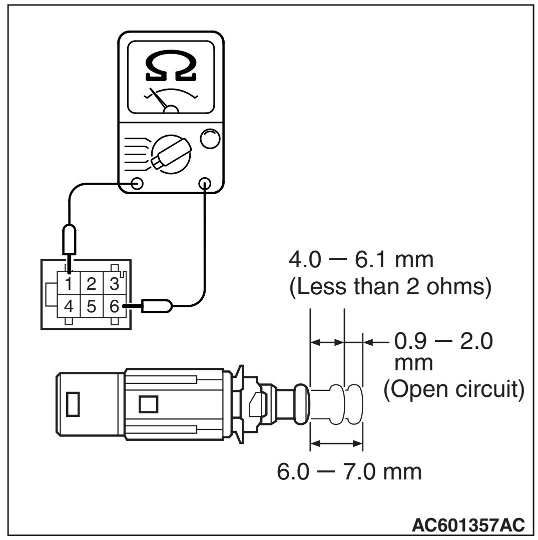
2. Check for continuity between the terminals of the switch.

Inspection status	Normal conditions
Do not press the plunger section.	Open circuit
Press the plunger section until it reaches to the value shown in the figure.	Less than 2 ohms

CLUTCH MONITOR SWITCH CHECK AND ADJUSTMENT

M1211004900027

1. Remove the clutch monitor switch.



2. Check the continuity for clutch monitor switch.

Tester connection terminal	Inspection status	Normal conditions
1 – 6	Do not press the plunger section.	Open circuit
	Press the plunger section until it reaches to the value shown in the figure.	Less than 2 ohms

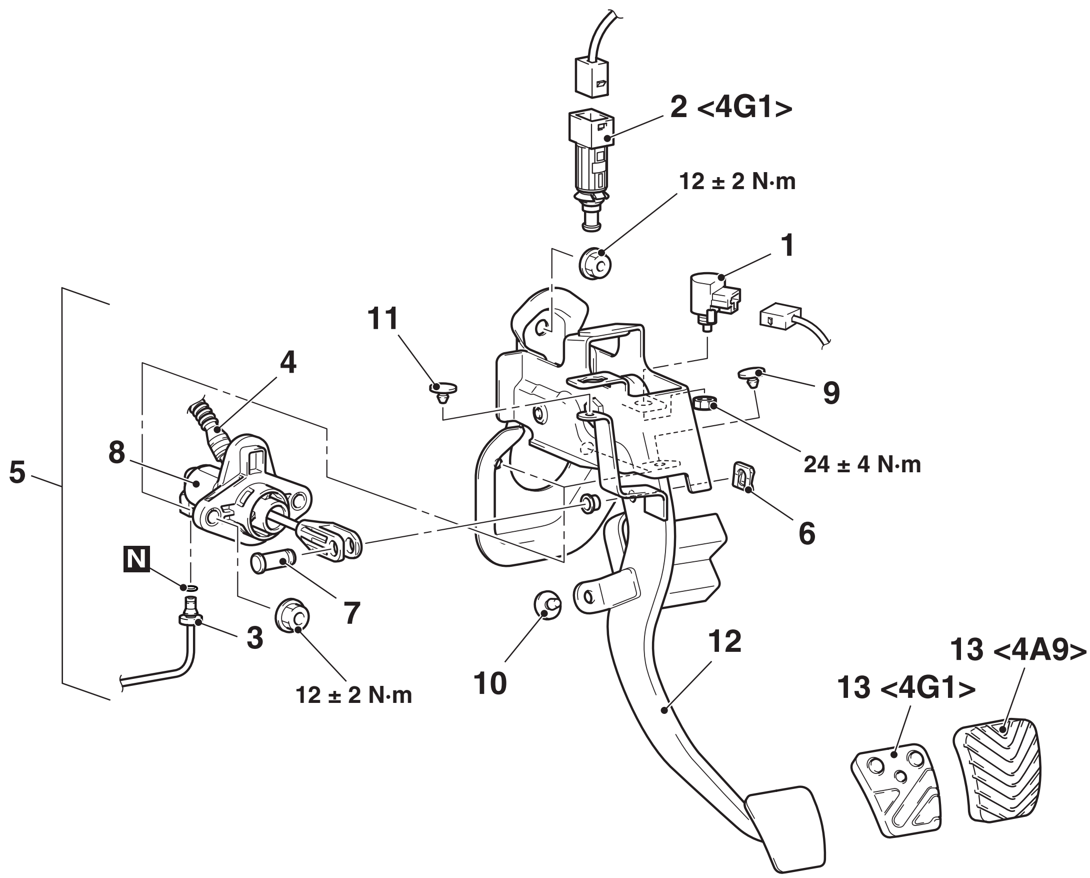
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CLUTCH PEDAL

REMOVAL AND INSTALLATION

M1211001600533

Pre-removal Operation	Post-installation Operation
• Clutch Fluid Draining • Engine Cover Removal (Refer to GROUP 11A, Camshaft P.11A-17 <4A9> or GOROUP 11C, Camshaft and Valve stem seal P.11C-20 <4G1>). • Strut Tower Bar Removal (Refer to GROUP 42, Strut Tower Bar P.42-11).	• Clutch Fluid Supplying • Clutch Line Bleeding (Refer to P.21A-3). • Strut Tower Bar Installation (Refer to GROUP 42, Strut Tower Bar P.42-11). • Engine Cover Installation (Refer to GROUP 11A, Camshaft P.11A-17 <4A9> or GOROUP 11C, Camshaft and Valve stem seal P.11C-20 <4G1>).



AC600645AC

Removal steps

- • Reservoir hose connection <Brake side>P.21A-7).
- 1. Clutch switch
- >>**B**<< 2. Clutch monitor switch
- <<**A**>> >>**A**<< 3. Clutch pipe assembly A connection
- • Lower panel (Refer to 52A, Instrument panel assembly P.52A-3).
- 4. Reservoir hose
- 5. Clutch pedal assembly and clutch master cylinder
- 6. Clutch master cylinder clip

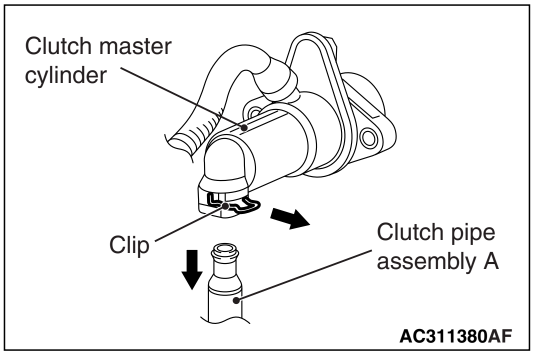
Removal steps (Continued)

7. Clutch master cylinder pin
8. Clutch master cylinder
9. Pedal stopper
10. Pedal stopper
11. Pedal stopper
12. Clutch pedal assembly
13. Pedal pad

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REMOVAL SERVICE POINT

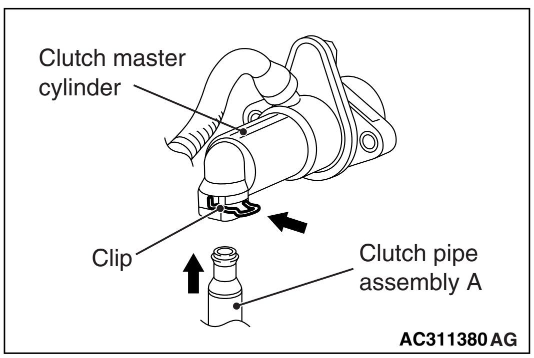
<<A>> CLUTCH PIPE ASSEMBLY A DISCONNECTION



Use a screwdriver to push out the clip, and disconnect the clutch hose or clutch pipe assembly A from the clutch master cylinder.

INSTALLATION SERVICE POINT

>>A<< CLUTCH PIPE ASSEMBLY A CONNECTION

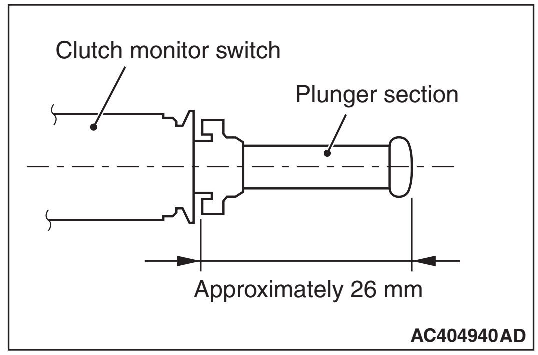


Install the clip to the clutch master cylinder, and then connect the clutch pipe assembly A to the clutch master cylinder.

>>B<< CLUTCH MONITOR SWITCH INSTALLATION

⚠ CAUTION

Pulling out the plunger section too frequently may damage the automatic adjustment mechanism section of the clutch monitor switch because it is made of plastics. If the plunger section is pulled out at least 2 or 3 times, replace the clutch monitor switch.



1. Pull out the plunger section of the clutch monitor switch to the maximum length (approx. 26 mm).

   NOTE: The clutch monitor switch incorporates the automatic adjustment mechanism for the plunger section.

2. Depress the clutch pedal fully and hold it to install the clutch monitor switch.

   NOTE: By installing the clutch monitor switch while the clutch pedal is depressed, the plunger section is adjusted to the standard value automatically.

3. Hold the clutch pedal to prevent it from moving, and press in the clutch monitor switch to the bracket of the clutch pedal assembly. Then, turn the clutch monitor switch clockwise to install it.

   NOTE: By installing the clutch monitor switch as described above, the plunger section is adjusted to the standard value automatically.

4. Connect the clutch monitor switch connector.

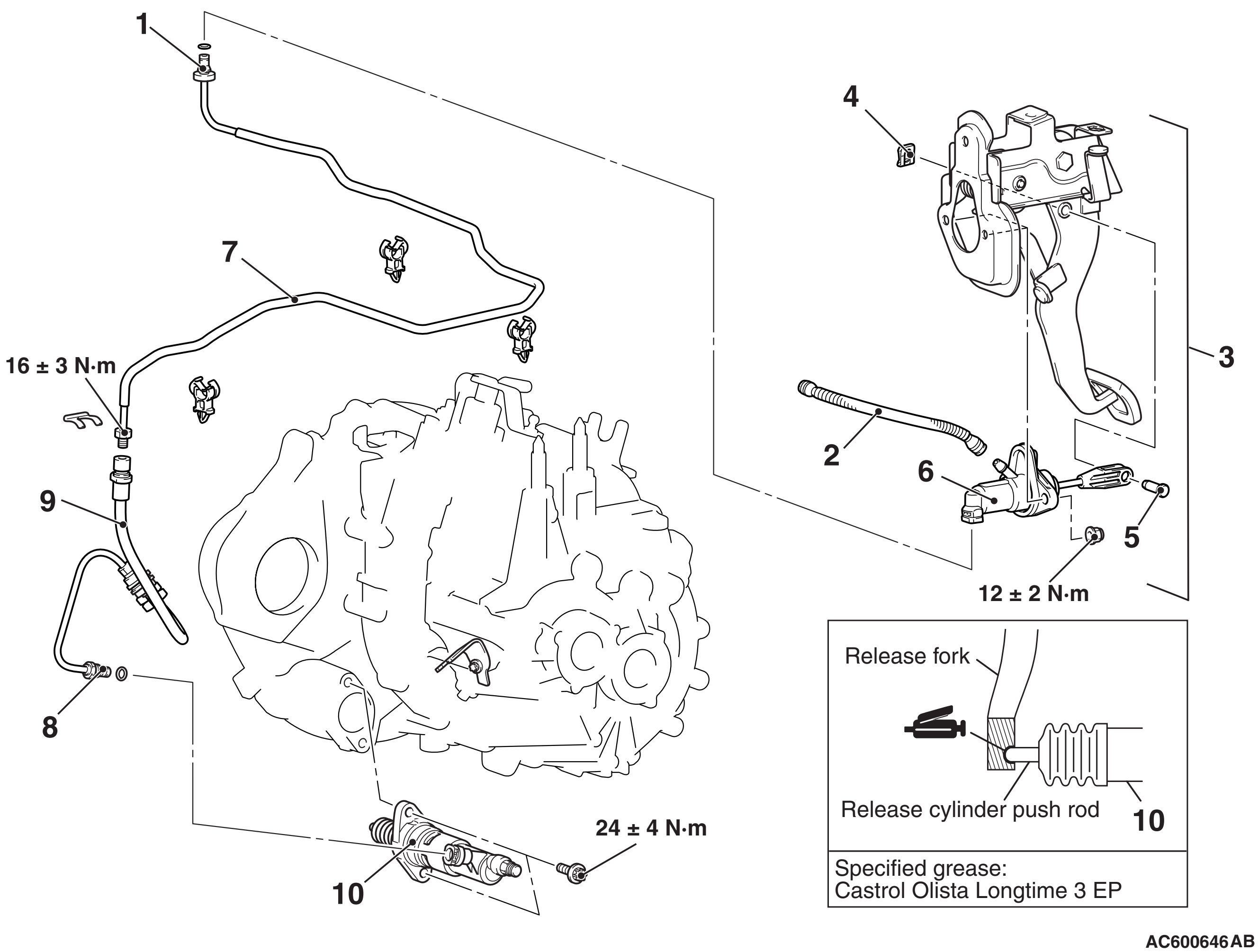
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CLUTCH CONTROL

REMOVAL AND INSTALLATION

M1211001900512

Pre-removal Operation	Post-installation Operation
Clutch Fluid Draining	• Clutch Fluid Supplying • Clutch Bleeding (Refer to P.21A-3)



Clutch master cylinder removal steps

- Engine cover (Refer to GROUP 11A, Camshaft P.11A-17 <4A9> or GOROUP 11C, Camshaft and Valve stem seal P.11C-20 <4G1>).
- Strut tower bar (Refer to GROUP 42, P.42-11).

<<**A**>> >>**B**<< 1. Clutch pipe assembly A connection
2. Reservoir hose
3. Clutch pipe assembly and clutch master cylinder
4. Clutch master cylinder clip
5. Clutch master cylinder pin
6. Clutch master cylinder

Clutch release cylinder removal steps

- Front under cover panel assembly (GROUP 51, Front bumper assembly and Radiator grille P.51-2).

<<**B**>> >>**A**<< 8. Clutch pipe assembly B connection
10. Clutch release cylinder

Clutch line removal steps

- Air cleaner assembly (Refer to GROUP 15, Air cleaner P.15-5 <4A9>, P.15-6 <4G1>).
- Intercooler air hose and pipe (Refer to GROUP 15, Intercooler P.15-8).
- Battery and Battery tray

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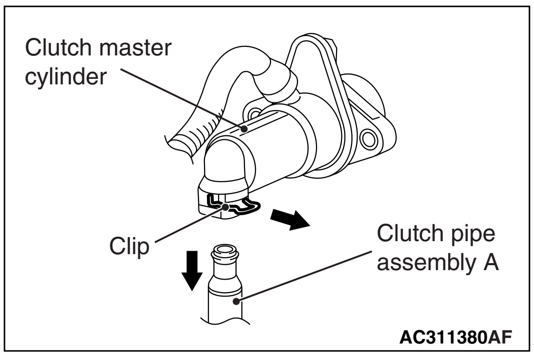
Clutch line removal steps

- Engine cover (Refer to GROUP 11A, Camshaft P.11A-17 <4A9> or GOROUP 11C, Camshaft and Valve stem seal P.11C-20 <4G1>).
- Strut tower bar (Refer to GROUP 42, P.42-11).

<<**A**>> >>**B**<< 1. Clutch pipe assembly A connection
7. Clutch pipe assembly A
<<**B**>> >>**A**<< 8. Clutch pipe assembly B connection
9. Clutch pipe assembly B

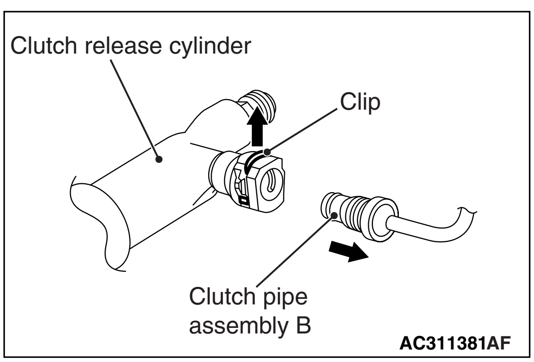
REMOVAL SERVICE POINT

<<A>> CLUTCH PIPE ASSEMBLY A DISCONNECTION



Use a screwdriver to push out the clip, and disconnect the clutch pipe assembly A from the clutch master cylinder.

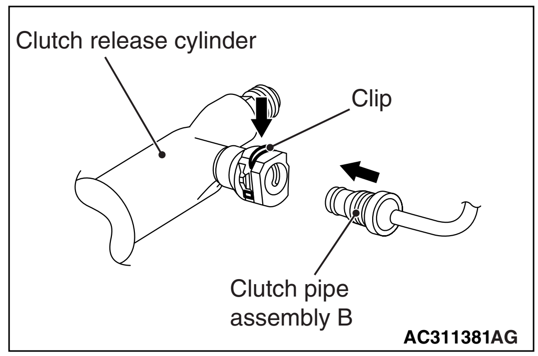
<<B>> CLUTCH PIPE ASSEMBLY B DISCONNECTION



Use a screwdriver to push out the clip, and disconnect the clutch pipe assembly B from the clutch release cylinder.

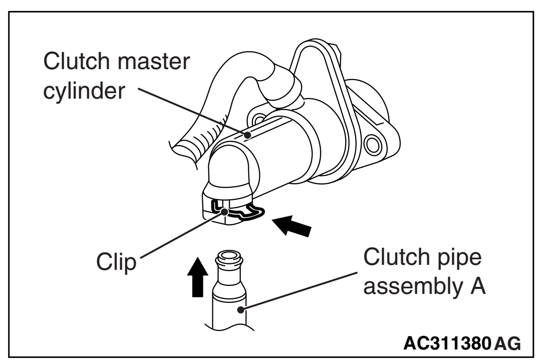
INSTALLATION SERVICE POINT

>>A<< CLUTCH PIPE ASSEMBLY B CONNECTION



Install the clip to the clutch release cylinder, and then connect the clutch pipe assembly B to the clutch release cylinder.

>>B<< CLUTCH PIPE ASSEMBLY A CONNECTION



Install the clip to the clutch master cylinder, and then connect the clutch pipe assembly A to the clutch master cylinder.